

DERWENT-ACC-NO: 2000-427548
DERWENT-WEEK: 200037
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TITLE: Dry etching procedure for manufacturing semiconductor device, involves etching silicon compound layer using saturated fluorocarbon group compound

PATENT-ASSIGNEE: SONY CORP[SONY]

PRIORITY-DATA: 1991JP-0040966 (February 12, 1991) , 1999JP-0375051
(February
12, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2000150465 A	May 30, 2000	N/A	009	H01L 021/3065

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP2000150465A	Div ex	1991JP-0040966	February 12, 1991
JP2000150465A	N/A	1999JP-0375051	February 12, 1991

INT-CL (IPC): H01L021/3065

RELATED-ACC-NO: 1992-354572

ABSTRACTED-PUB-NO: JP2000150465A

BASIC-ABSTRACT: NOVELTY - A silicon compound layer is formed on a base.
The

silicon compound layer is etched using gas containing saturated or unsaturated fluorocarbon group compound such as octafluoro cyclobutane and hexafluoro cyclobutene. A coolant cools the etched silicon compound layer below 50 deg. C.

USE - For manufacture of semiconductor devices such as VLSI and ULSI devices.

ADVANTAGE - High speed etching is obtained by octafluoro cyclobutane and hexafluoro cyclobutene gases. Cooling using coolant provides high anisotropy

and low damage property. Thus high performance and high degree of integration of semiconductor device, are obtained.

DESCRIPTION OF DRAWING(S) - The figure shows the sectional view of steps involved in dry etching procedure.

· CHOSEN-DRAWING: Dwg.1/2

TITLE-TERMS:

DRY ETCH PROCEDURE MANUFACTURE SEMICONDUCTOR DEVICE ETCH
SILICON COMPOUND LAYER
SATURATE FLUOROCARBON GROUP COMPOUND

DERWENT-CLASS: L03 U11

CPI-CODES: L04-C07B;

EPI-CODES: U11-C07A1;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2000-129830

Non-CPI Secondary Accession Numbers: N2000-319173

	Type	L #	Hits	Search Text	DBs	Time Stamp	C o m m e n t s	E r r o r s	E r r o r s
1	BRS	L1	948	etch\$3 and (perfluoro cyclobutene)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 14:51			0
2	BRS	L8	957	etch\$3 and ((perfluoro cyclobutene) or (C4F6))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 14:51			0
3	BRS	L15	148	etch\$3 same ((perfluoro cyclobutene) or (C4F6))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 15:48			0
4	BRS	L50	92	15 and @pd<=20000830	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 15:49			0
5	BRS	L57	552	8 and @pd<=20000830	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 15:53			0
6	BRS	L64	18	57 and 438/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 16:03			0
7	BRS	L71	20	57 and 252/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 16:03			0
8	BRS	L78	19	71 not 64	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/10/18 16:03			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	C o m m e n t s	E r r o r D e f i n i t i o n	E r r o r s
1	BRS	L1	53	(etch\$3) with ("C.sub.3 F.sub.6" or "hexafluoro propane" or "propane hexafluoride")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/15 13:22			0
2	BRS	L8	53	(etch\$3) with ("C.sub.3 F.sub.6" or "hexafluoro propane" or "propane hexafluoride" or "cyclo propane")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/15 15:11			0
3	BRS	L15	25	8 and @pd<=20000830	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/15 13:25			0